Maine School IPM News

Maine Department of Agriculture, Food, & Rural Resources

Winter 2012

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Microbe Management for Schools

Cleaning and sanitation of school facilities is an important component of pest management. Microbes such as molds, mildews, bacteria, and viruses can present health risks in schools. However, misuse of cleaning and antimicrobial chemicals also pose risks to school occupants. It is important that any compounds used for cleaning and disinfecting be selected, used, stored and disposed of properly to ensure human health and safety and minimized environmental impacts.

The first step in implementing an IPM program for microbes is to distinguish between cleaning and disinfecting tasks. Cleaning activities, such as scrubbing with soap and water, can be used to remove or kill many microbes and are sufficient in many cases. Disinfecting tasks, on the other hand, are specifically designed to kill microbes and often rely on the use of disinfectant products containing anti microbial chemicals such as chlorine bleach. The best approach in schools is to use disinfectants only where and when needed (primarily in bathrooms, locker rooms, and on food preparation surfaces in kitchens). Cleansing with low-risk products, such as soaps, detergents, or enzyme-based compounds, is usually sufficient for most routine sanitation needs such as in hallways, offices, and classrooms.

For much more information, visit www.maine.gov/agriculture/pesticides/schoolipm/pests/MicrobeManagement.htm

A 3D rendition of a flu virus

Protecting Yourself and Others

The cold winter months are prime season for an unwanted visitor- the flu. "Prevention is the best medicine" is a good strategy for avoiding the flu and colds, not only for you, but also for others. Cold and flu germs can stay on hands for up to eight hours, making you take more than just your work home at the end of the day. It also allows themto spread easily. Let's keep the flu season to a minimum this year! The Maine Center for Disease Control gives some suggestions to help prevent the spread of the cold and flu this winter:

• Wash your hands for 15-plus seconds – the time it takes to say the ABCs – with soap and warm water. Don't forget to wash the backs of the hands.

• Cough and sneeze into your elbow, a tissue, or a handkerchief- NOT your hands. If you do cough or sneeze into your hands, wash them immediately.

• Drink plenty of fluids, get plenty of rest, and exercise. All these are good for overall health but also may help prevent/lessen the effects of a cold or flu.

• If you don't feel well, stay home. Do not risk getting coworkers and others sick by going into work.

• Remember that colds and the flu are caused by viruses- antibiotics fight against bacteria and have no effect on a virus. There are many over the counter products that can lesson symptoms.

For more information, see the Maine CDC page on influenza: www.maine.gov/dhhs/mecdc/infectious-disease/epi/influenza/maineflu/

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Pest Sighting Logs are used by school employees to communicate pest problems to the pest control technician.

As a faculty/staff member, how do I get IPM implemented in my school?

Besides students, faculty and staff also inhabit classrooms and food service areas. As a result, teachers and staff are exposed to all the same risks as the students. In addition, faculty and staff should not introduce potentially harmful "bug sprays" into the classroom. Commonly used "over-the-counter" products available at local stores often contain the same ingredients as those products available only to licensed pest control operators. When used in the classroom, these sprays are potentially dangerous to chemically sensitive children. Also, these products can make some pest problems worse because they may interfere with or even reduce the effectiveness of treatments made previously by the pest management staff. Interested faculty and staff can follow several steps in helping to get Integrated Pest Management (IPM) to work.

- **Never Bring in Cans of Bug Spray.**

If you have an emergency pest problem, follow the procedure provided by the pest management personnel. Hopefully, a mechanism exists whereby you can notify the pest management technician (by telephone or written report) of any pest problems so they can quickly treat the problem. Do not buy pesticide products at local stores to use in school areas.

- **No Exposed Food or Drink in the Classroom.**

Do not bring food or beverage items into the classroom, except in sealed containers (i.e. lunch boxes). It is very important to continually remind children that food and snacks are to be eaten in the cafeteria, not the classroom. Even the tiniest of crumbs is a full meal for rodents, cockroaches or ants. If food incentives are used in the classroom, they should be stored in plastic, sealable containers. If items are small, freezer bags are recommended because they are made of a thicker material that is more pest resistant than the cheaper baggies. If your school has a "grab-and -go" type of meal, assign a daily "clean team" to sweep crumbs and remove food trash from the classroom once the meal is over. Also, remember that recyclable goods kept indoors provide, food and harborage for many pests. These items should be thoroughly cleaned and rinsed before storage.

- **Keep the Classroom as Clean as Possible.**

Sanitation, not pesticides, makes the biggest impact on pest populations. Cleaning up after any pets in the classroom and after parties is an absolute must. Empty soda cans, used paper plates, food wrappings, etc. should be placed in the trash can and then hauled to an outside dumpster before the end of the day. Trash cans full of this type of debris left overnight in the classroom are often sources of pest problems.

- **Get to Know the Pest Management Staff.**

Whether pest control is handled "in-house" or is contracted out, try and interact with the pest control technicians as often as possible. The more communication that occurs between the faculty/staff and the pest control technician, the more effective pest control will be. It is very important for teachers/school staff to communicate with the pest control technicians about the kind of pest problems that exist. Specifics such as where the pests are (i.e. near the sink in the rear of the classroom), what kind of pests exist (i.e. cockroaches, ants, wasps, rodents), and when they are a problem (i.e. only in the morning or all the time) is valuable information to the pest control technician. The technician will be better prepared to treat the pest problem with this sort of information. A great way to communicate pest problems to the pest control technician is by using a Pest Sighting Log.

- **Begin Using a Pest Sighting Log.**

Pest Sighting Logs are used by school employees to communicate pest problems to the pest control technician. The log is a record of when the pests were seen, by whom, where, and what kind of pests were present. The pest control technician checks the log and then uses the information provided to treat the problem. The pest control technician also records what action was taken to treat the pest problem on the Pest Sighting Log. Information such as what pests were

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Pest of the Month - Head Lice

Coming back to school is one of those events that can cause excitement and anxiety at the same time.

New school year, new activities, new classes, new friends. Friends share. They share more than they should sometimes--hats, caps, combs, hair ties--and while we like to encourage sharing, this is one of the ways the human "ectoparasite" the head louse is thought to be transmitted. Actually, the way head lice are probably most commonly transmitted is "head-to-head" contact.

The first thing you need to know is that it is **USELESS to spray for head lice** in your classrooms or at home--so please don't ask your pest control technician to do so. Head lice typically die within 24 to 48 hours after being dislodged from its host--they need to be on the scalp in order to survive.

Here are some tips on how to **PREVENT** head lice outbreaks:

1. Children should be encouraged NOT to share combs, hats, and other personal belongings.
2. Periodic inspections (monitoring) will aid in early detection of any individual lice which are more easily controlled than advanced infestations where dozens of mature lice and possibly hundreds of lice eggs are present. Be aware of medical and privacy issues. Consult your school nurse.

NOTE: The issue of personal hygiene is important, but lice are easily transmitted and children should not be stigmatized because of a one-time occurrence.

You'll also need to know a couple of other key life-cycle points about head lice in order to understand why insecticides alone won't cure this problem.

BIOLOGY: LICE ARE INSECTS

Lice have three pairs of legs which make them true insects. Lice do not have wings or powerful jumping legs so they move about by clinging to hairs with claw-like legs. Head lice prefer to live on the hair of the head although they have been known to wander to other parts of the body.

LICE EGGS ARE CALLED "NITS"

- Nits are oval white cylinders (1/16 inch long), commonly found near the ears and back of the head (Fig. 2, 3).
- Nits are glued to hairs of the head, usually near the scalp and are very hard to remove. A fine-toothed metal comb for nit removal is a must and is usually available at any pharmacy.
- Under normal conditions the eggs will hatch in 7-10 days, long enough for hair to grow away from the scalp. *The importance of this factoid: if the nits are more than ¼" from the scalp, they are probably no longer viable or hatched out already.*
- Female lice lay 6-7 eggs (nits) per day and may lay a total of 50-100 eggs during their life, which may last up to 40 days.
- Head lice do not normally live within rugs, carpet, or school buses.
- *A Harvard School of Public Health study demonstrated that nits are misidentified about 40% of the time, causing unnecessary absences from school.*

ONCE NITS HATCH-

- The young lice which emerge from nits must feed within 24 hours or they will die.
- Newly hatched lice will periodically take blood meals and molt three times before becoming adults.
- Normally a young louse will mature in 10-12 days to an adult.

THE ADULTS:

- Adults (Fig. 1) can only survive 1-2 days without a blood meal. The nymphs and adults all have piercing-sucking mouthparts which pierce the skin for a blood meal.

WHAT CAN SCHOOLS DO?

Do not treat the premises with pesticides! Treating rooms, carpets, desks, etc. is not recommemded. Vacuuming floors, especially carpets recently occupied by infested persons are recommended. Lice will soon die (generally within two days) once off the head for a day. Nits attached to hair that have fallen from an infected person will likely stop developing and will also die within a few days. Although it is not necessary to thoroughly clean school busses, vacuuming floors of classrooms or homes occupied by infected persons will help dispel concerns about lice or eggs that may have dropped from an infected person. Clothing, pillows, cloth toys, and other items that may have been used by infested children may be treated by heating in a clothes dryer on high heat or by sealing in a plastic bag for two weeks.

Learn more at www.maine.gov/agriculture/pesticides/gotpests/lice3.html

HEADLICE FACTOIDS:

- *Pediculus capitis* DeGeer infests 10-12 million people each year in the United States. Pediculosis (lice infestation) is one of the most prevalent communicable conditions in this country.
- Are not found on animals or household pets and are not transmitted from pets to humans.
- Infestations are normally found on children, but can also be spread to adults.
- Are transferred from person to person by direct contact or by several people using the same combs, brushes, hats, or bedding.

"Adults can only survive 1-2 days without a blood meal."

Fig. 1. Adult head louse. About 1/8" in length; range in color from white to brown to dark gray.

Fig. 2. Nit with cap gone and dead unemerged larva.

Fig. 3. Viable nit glued to hair.

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WE'RE ON THE WEB!
WWW.THINKFIRSTSPRAYLAST.ORG/SCHOOLIPM

Regional News- Reducing Health Risks in Public Housing

The Regional IPM Centers are coordinating "IPM Training in Public Housing," a national project to reduce pest-related risks that can trigger asthma. This collaborative effort between the Regional IPM Centers, U.S. Department of Housing and Urban Development's Healthy Homes Initiative, the Environmental Protection Agency, Land-Grant institutions, and public housing personnel and residents is implementing IPM to reduce human health risks. There are 1.2 million public housing units in the U.S. This project addresses many urban pest issues including bed bug infestations that are increasing at an alarming rate across the U.S. Partnering with the public housing personnel and residents will allow this sustainable approach to have long-term impacts in reducing asthma and other human health problems resulting from pest infestations.

After School Education on Bedbugs

Maine School IPM is currently working with Portland Public Housing Authority to offer an after-school program for youth. The goal is to educate children on safer, effective strategies for managing bedbugs, cockroaches, and other pests that can hitchhike to from home to schools.

Many people who use the Portland Public Housing Authority's program are immigrants. The language barrier is a serious problem. Public housing is often used by immigrants who are not fluent in English, however, children of the immigrants often speak English fluently or have a much better understanding of it than their parents. This after school program hopes to reach parents and families via teaching the children enrolled in this program. Students will learn tips on how to identify a pest problem, monitor for pests, and how to react to a pest issue, and can relay this information to their parents. Maine School IPM and the Portland Public Housing Authority are hopeful that this will be an effective way to reduce the pest problems in public housing and prevent them from hitchhiking to schools.

As a faculty/staff member, how do I get IPM implemented in my school? (cont'd)

identified, what the cause of the pest problem was, and what action was taken (including exclusion, sanitation, or pesticides, if any) is important to record. The pest control technician also makes recommendations to building maintenance staff on the Pest Sighting Log about what changes in maintenance might help prevent future pest problems (installation of proper door sweeps, turning off unnecessary lights at night, installing proper window screening). A Pest Sighting Log should be kept in an accessible area such as the main office, cafeteria manager's office, or teacher's lounge area.

- **Discuss IPM with the Pest Manager.**

Convincing your current pest manager to implement IPM may be simpler than you think. Also, speak with your school's principal about IPM and the advantages it furnishes by providing a safer school environment.

Learn as Much as Possible About IPM.